

REMARKS

Reconsideration of the subject application in view of the present amendment is respectfully requested.

By the present Amendment, the specification has been amended to correct formal errors therein and to describe in more detail features shown in the original drawings. The amendment has been effected by replacing a respective paragraph of the specification (a hand-marked copy of the respective page (page 9), as required by Rule 121, is enclosed), and by adding a new paragraph (on page 11).

The drawings have been amended to provide missing reference numerals.

Claims 1-9 have been canceled, and claims 10-17 have been added.

Based on the foregoing amendments and the following remarks, the application is deemed to be in condition for allowance, and action to that end is respectfully requested.

I. Rejection of Claims Under 35 U.S.C. § 112

The Examiner rejected claims 5-6 under 35 U.S.C. § 112, first paragraph, for allegedly not being supported by an enabling disclosure, and rejected claim 3 under 35 U.S.C. § 112, second paragraph for allegedly being indefinite.

As noted above, claims 3 and 5-6 have been canceled, together with claims 1, 2, 4, and 7-9. It is respectfully submitted that claims 10-17 comply with all of the requirements of 35 U.S.C. § 112. Specifically, the foregoing amendments of the specification provide an adequate support for the subject matter of claims 12 and 14 which replace claims 3 and 6.

It is respectfully submitted that the foregoing amendments of the specification do not constitute new matter as the described features are clearly shown in the original drawings.

II. Rejection of Claims Over the Prior Art

The Examiner rejected claims 1-9 under 35 U.S.C. § 103(a) as being unpatentable over Sato et al., U.S. Patent No. 5, 207, 138 (Sato). Claims

1-9 have been canceled. It is respectfully submitted that claims 10-17 patentably distinguish from the prior art, including Sato, and are, therefore, allowable.

Specifically, claim 10 recites:

- (i) blade-carrying first upper and second lower blade drums rotatably fixed in the shear frame and having, respectively, comparatively large and small diameters; and
- (ii) means for permanently rotationally connecting the first and second drums.

The novel features of the present invention, as defined by claim 10, are not disclosed or suggested in Sato. In Sato, the upper and lower drums (6, 2) are not fixed in the shear frame. The drums (6, 2) are supported in vertically displaceable upper and lower drum chocks (9a, 9b and 5a, 5b) which are displaced by respective hydraulic cylinders (13a, 13b and 11a, 11b). Further, in Sato, the first and second drums are not permanently rotationally connected

with each other (please see Figs. 4-5, 7-8 ...). Vertical movement of the blade drums prevents such connection.

From the foregoing description, it should be clear that the Sato structure is mechanically more complicated and would have substantial backlash. The backlash would result from the sum of tolerances associate with the transmission shafts (18, 19), intermediate shafts (25, 26), and universal joints (18, 19, 23, 24) in the power chain from the drive motor to the blade drums.

It is further respectfully submitted that the modification of Sato set forth in the office action would not be obvious.

Under MPEP § 2143 *prima facie* case of obviousness requires that three basic criteria be met.

First, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that the first element of *prima facie* obviousness has not been established. It is a long held view that

“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so.”

In re Fritch, 23 U.S.P.Q. 2d 1780, 1783 (Fed. Cir 1992) (footnote omitted). See also In re Sernaker, 217 U.S.P.Q. 1, 6 (Fed. Cir. 1983); SmithKline Diagnostice, Inc. v. Helena Laboratories Corp., 8 U.S.P.Q. 2d 1468, 1475 (Fed. Cir. 1988); In re Laskowski, 10 U.S.P.Q. 2d 1397, 1399 (Fed. Cir. 1989); In re Fine, 5 U.S.P.Q. 2d 1597, 1598 (Fed. Cir. 1988).

There is no suggestion, incentive or motivation in the cited references for the combination on which the Office Action relies. A statement that it would have been obvious to one skilled in the art to make modifications to the references is not sufficient to establish a *prima facie* case of obviousness. MPEP § 2143.01 relying on Ex Parte Levengood, 28 U.S.P.Q. 2d 1300 (Bd. Pat. App. & Inter. 1993). In order to establish a *prima facie* case of obviousness, “it is necessary for the Examiner to present evidence, preferably in

the form of some teaching, suggestion incentive or inference in the prior art, or in the form of generally available knowledge, that one having ordinary skill in the art would have been led to combine the relevant teachings.” Id.

The Federal Circuit has held that a claimed invention was not obvious, where “[c]onspicuously missing from [the] record is any *evidence*, other than the PTO’s speculation (if it be called evidence) that one skilled in the art would have been motivated to make the modification of the prior art “necessary to arrive at the claimed invention. In re Jones 21 U.S.P.Q. 2d 1941 (Fed. Cir. 1992).

Accordingly, at least the first element of *prima facie* obviousness has not been established.

Accordingly, applicants respectfully submit that the criteria for obviousness has not been met.

In view of the above, it is respectfully submitted that claim 10 patentably defines over the prior art and is, therefore, allowable.

Claims 11-15 depend on claim 10 and are allowable for the same reasons claim 10 is allowable and further because of specific features recited therein which, when taken alone and/or in combination with features of claim 10, are not disclosed or suggested in the prior art.

It is respectfully submitted that claims 16 and 17 are likewise patentable over the prior art, including Sato. Specifically, Sato does not disclose or even remotely suggests:

- (i) forming the upper drum as an upper beam bridge;
- (ii) permanently rotationally connecting the upper beam bridge with the lower drum; and
- (iii) means for supporting the tensioned strip and providing for lifting of the strip before passing of the second lower blade and for lowering the strip before passing of the first upper blade through the blade gap.

as recited in claim 16.

Nowhere Sato suggest that the drum (6) can be replaced with a beam bridge. If applicant has overlook such suggestion in Sato, the Examiner is respectfully requested to point out where Sato suggests forming the upper drum as a beam bridge.

Further, in discussion of Sato with reference to claim 8, the office action does not point out that Sato discloses means that provides for lifting and lowering the strip. No such means is disclosed in Sato. In Sato, the strip-supporting rollers (77) are stationary and do not provide for lifting or lowering of the strip (52). In Sato, lifting and lowering of the strip is effected by the blade drums themselves (column 7, lines 21-23). The rollers (77) guide the strip linearly or horizontally (column 8, lines 36-39).

According to the present invention, the lifting and lowering of the strip is effected by displacement of the strip-supporting rollers (6, 6') (page 8, last paragraph).

In view of the foregoing, it is respectfully submitted that Sato does not make the present invention, as defined by claim 16, obvious and, therefore, claim 16 is patentable over Sato.

Nor does Sato make the invention set forth in claim 17 obvious. Sato does not disclose, teach, or otherwise suggests the following features of claim 17:

- (i) a first upper blade drum carrying a cutting bit and a second lower blade drum carrying an anvil;
- (ii) means for permanently rotationally connecting the first and second drums; and
- (iii) roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second blade and for lowering the strip before passing of the first blade.

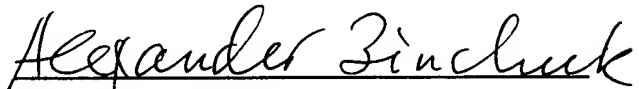
It is respectfully submitted that claim 17 is patentable over the prior art, including Sato.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance, and allowance of the application is respectfully requested.

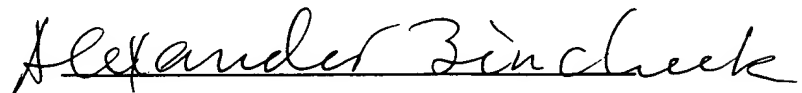
Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects, in order to place the case in condition for final allowance, then it is respectfully requested that such amendment or correction be carried out by Examiner's amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully Submitted,


Alexander Zinchuk
Reg. No. 30,541

Dated: April 26, 2002
Sidley Austin Brown & Wood LLP
875 Third Avenue
New York, N.Y. 10022
Tel.: (212) 906-2799 X 21236

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U.S. Patent Application, Serial No. 09/710390
marked-up version of changes made.

According to an embodiment of the present invention, which is shown in

Fig. 3a, the first and second blade drums 1 and 2 are fixedly connected with synchronization tooth gears ¹¹ 9, 11, respectively, having respective diameters roughly corresponding to the blade diameters 12, 13 of respective blades 7, 8.

The synchronization gears 9, 11 engage each other backlash-free.

Obviously, as *per se* known, the first and second blade drums 1, 2 can be connected with respective drive shafts by a transmission (not shown) which would provide a different transmission ratio than the synchronization gears 9,

11. as shown in the drawings, in the

~~The upper, first blade drum 1, on which the blade 8 is mounted, is~~ the
~~noticeably flattened at the periphery~~ having ~~opposite~~ the blade diameter 12. Therefore,

the shear can be brought into a position in which a large opening or gap is formed between the drum 1 and the upper edge of the roll table along which the strip 10 is advanced. A large opening is needed, during entering and passing through of the strip head, as the strip head, for bending up of the front end, is inclined, in a manner of a ski, and with a smaller gap, the strip can be damaged in the region of the shear.

radial distance from the drum rotational axis to the drum periphery opposite the blade diameter 12 is noticeably smaller than the radial distance from the rotational axis to